

Purpose of Chapter 6

The information presented in this chapter highlights some of the more significant environmentally sensitive areas within the GRP region that could be impacted as a result of an oil spill. Consistent with the overall purpose of the GRP's, this information is only intended to provide a level of detail required during the initial phase of spill response. During an actual event, additional resource information will be available from the resource trustee agencies supporting the Environmental Unit in the Planning Section. Specific resource concerns for areas that already have designated protection strategies in Chapter 4 of the GRP may be found in the "Resources Protected" column in the matrix describing the individual strategies.

The information provided in Chapter 6 is intended for use in:

- Preparing an initial ICS 232 form (Resources-at-Risk summary) for Incident Command
- Identifying those sites where it may be necessary to implement Flight Restriction Zones in order to prevent disturbance/injury to sensitive wildlife species.
- Identifying sensitive shoreline habitats to assist SCAT teams in their initial assessments and to help personnel in the Environmental Unit in developing appropriate cleanup strategies.

Chapter 6 consists of two sets of maps and tables - one for wildlife and the other for fish, shellfish and selected sensitive marine habitats. These data are presented separately, both for ease of reading and because each of the two data sets has slightly different applications within the context of spill response.

The wildlife maps and tables present information on the location and seasonal sensitivity of key wildlife resources. Types of data included here are concentration areas for waterfowl, marine birds and shorebirds; seabird colonies; nesting areas for sensitive species such as eagles, herons and falcons; and marine mammal haulout sites. This information is intended for the rapid identification of areas where significant wildlife oiling impacts could be anticipated and to denote areas where flight restriction zones may be required to protect sensitive wildlife. Each site depicted on these maps is identified by a unique number in order to facilitate the process of communicating Flight Restriction Zone recommendations to the Operations Section in ICS. The tables accompanying the wildlife maps present information on the season(s) during which sites may be particularly sensitive to disturbance.

The fish/shellfish/marine habitat maps present general information on the location of baitfish spawning beaches, herring spawning areas, streams used by anadromous salmonids, hardshell clam concentrations, and kelp and eelgrass beds. This information will be most useful to personnel involved in assessing initial risks to fish and shellfish resources and to those conducting initial beach reconnaissance, pending availability of more detailed resource information and the formation of SCAT teams.

Because the operational uses of this information differ from those of the wildlife data, individual site identification numbers have not been assigned. Tables associated with these maps will identify the seasonal sensitivity of each resource. In addition, notes accompanying each table will provide information on the general distribution and seasonal sensitivity of those resources that are not mapped but may occur anywhere in the GRP region (ex. juvenile salmonids in shallow nearshore waters).

6. Sensitive Resource Description *

6.1. Marine Mammals

6.2. Birds

6.3. Flight Restriction Zones

Flight restriction zones have been designated in the GRP to minimize disturbance to certain wildlife species. An identified location could represent a marine mammal haulout site, a seabird or heron colony, or the individual nest of a sensitive species such as bald eagle. While some zones may be restricted year around, others will be in effect only during the months listed in the matrix.

The no-fly bubble is the area within a 1,500 foot radius and below 1,000 feet in altitude around the location.

All aircraft, including those from the government, contractors or media, are expected to avoid these zones when restrictions are in effect. In the event that one of these zones must be entered during a spill response, clearance must be obtained from the Washington Department of Fish and Wildlife (WDF&W) and the United States Fish and Wildlife Service (USFWS), or when marine mammals other than sea otters are concerned, the National Marine Fisheries Service (NMFS). Sea otters are managed by the United States Fish and Wildlife Service.

During oil spills, pilots are also asked to avoid disturbing any large concentrations of birds and other wildlife. By keeping a safe distance or altitude, pilots can prevent the accidental hazing of unaffected wildlife into oiled areas and minimize the risk of aircraft/ bird collisions.

6.4. Hazing

Hazing or directed harassment, is a method used to drive or herd wildlife out of an area where they are at risk of becoming oiled. Hazing techniques include the use of visual and audio devices, personnel for herding, vessels and aircraft. In the right circumstances it can be an effective tool for protecting some wildlife species. In other cases it can be disastrous as unaffected wildlife can be driven into oiled areas, or forced to abandon nests or young.

National Marine Fisheries Service staff or their designees will perform all hazing of marine mammals other than sea otters. Before hazing can begin for all other species of wildlife, clearance must be obtained from the Washington Department of Fisheries and Wildlife and the United States Fish and Wildlife Service. All hazing efforts during a spill will be directed by these agencies. The deliberate harassment of wildlife without first securing permission from these agencies is a violation of Federal and State laws.

The following information must be provided for a determination on whether hazing might be authorized in a given situation.

* Generated for the GRP by the Spill Response and Resource Protection Team of the Washington Department of Fish and Wildlife

1. Description of the situation where hazing authorization is being sought
2. Location to be hazed
3. Species of wildlife to be hazed and number of animals
4. Methods and equipment used
5. Date and time of hazing
6. Name, phone number, radio frequency, pager number and the amount of hazing experience of the individual requesting permission

The responsible agencies will evaluate each request on a case by case basis. All hazing of marine mammals, threatened and endangered species, and all hazing by aircraft will be performed only under authority and general supervision of WDF&W, USFWS, NMFS or persons designated by these agencies. Representatives of these agencies can be contacted through the planning section of the Unified Command System during the spill event.

PORT TOWNSEND FLIGHT RESTRICTION ZONES / SENSITIVE WILDLIFE

									Flight and Ground Entry Restrictions *											
									PERIOD OF SENSITIVITY											
Map Page18441									Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	Location	Seabird Colony	Seabird Conc	Waterfowl Conc	Marine Mammal Haulout	Sensitive nesting species	Shorebird concentration	Flight Restriction												
WAI-9	Port Townsend		Yes	Yes				No												
WAI-10	Marrowstone Pt.					Yes		Yes												
WAI-10A	Kilisut Hrbr Spit				Yes			No												
WAI-11	Glen Cove					Yes		Yes												
WAI-12	Kilisut Harbor			Yes	Yes	Yes		Yes												
WAI-14	Kala Point			Yes				Yes												
WAI-15	Hadlock			Yes				Yes												

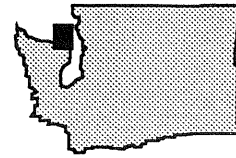
* FLIGHT AND GROUND ENTRY RESTRICTIONS

Flights below 1000 feet require clearance: See appendix on Flight Restriction Zones

Sensitive season - Minimize overflight disturbance

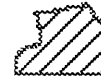
PORT TOWNSEND**FLIGHT RESTRICTION ZONES FOR SENSITIVE WILDLIFE SPECIES**

1. Pilots refer to the chapter on Flight Restriction Zones.
2. All ground entry within 100 yards of sensitive nesting species is restricted.
3. All boaters are requested to approach no closer than 100 yards to seal and waterfowl concentrations.

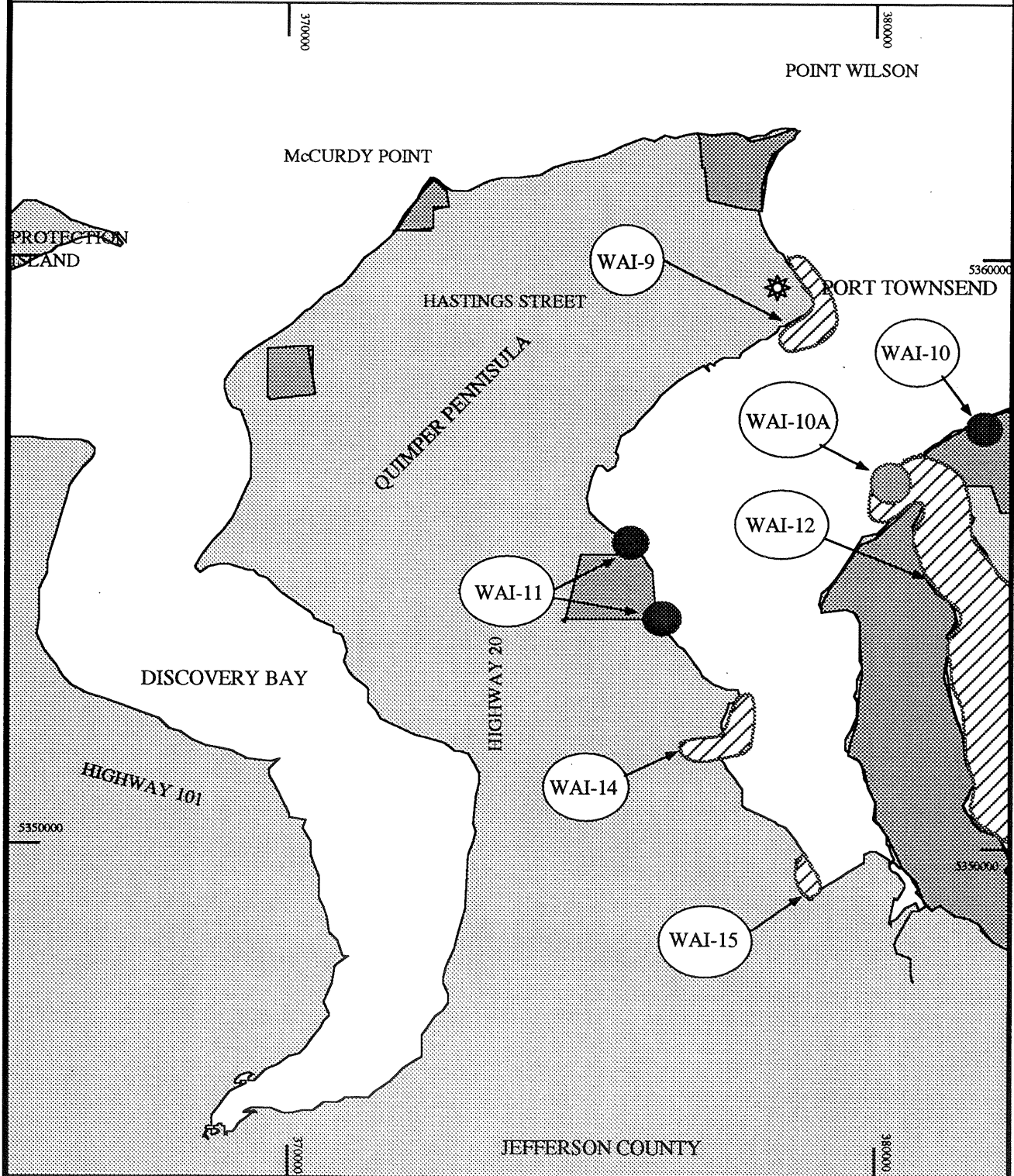


MARINE MAMMAL HAULOUT
 SENSITIVE SPECIES NESTING
 BOAT LAUNCH

PARK OR PUBLIC LAND
 RESERVATION
 TOWN OR CITY



BIRD CONCENTRATION AREA



MARROWSTONE ISLAND FLIGHT RESTRICTION ZONES / SENSITIVE WILDLIFE

									Flight and Ground Entry Restrictions *											
Map Page 18441									PERIOD OF SENSITIVITY											
Code	Location	Seabird Colony	Seabird Conc	Waterfowl Conc	Marine Mammal Haulout	Sensitive nesting species	Shorebird concentration	Flight Exclusion	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WAI-1	Crockett Lake			Yes			Yes	Yes												
WAI-2	Lake Hancock Wlds			Yes				No												
WAI-3	Lagoon Point			Yes				No												
WAI-4	Bush Point					Yes		Yes												
WAI-10	Marrowstone Point					Yes		Yes												
WAI-10A	Kilisut Harbor Spit				Yes			No												
WAI-12	Kilisut Harbor			Yes	Yes	Yes		Yes												
WAI-13	Nodule Point					Yes		Yes												
WAI-13A	E. Marrowstone I.				Yes			No												
WAI-16	Upper Oak Bay		Yes	Yes				No												
WAI-17	Kinney Point					Yes		Yes												
WAI-18	Olele Point					Yes		Yes												
WNC-10	Baby Island				Yes			Yes												
WNC-11	Freeland					Yes		Yes												
WNC-14	North Bluff					Yes		Yes												

* FLIGHT AND GROUND ENTRY RESTRICTIONS

Flights below 1000 feet require clearance: See appendix on Flight Restriction Zones

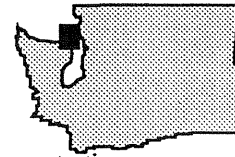
Sensitive season - Minimize overflight disturbance

MARROWSTONE ISLAND

HOOD CANAL / ADMIRALTY INLET GRP

FLIGHT RESTRICTION ZONES FOR SENSITIVE WILDLIFE SPECIES

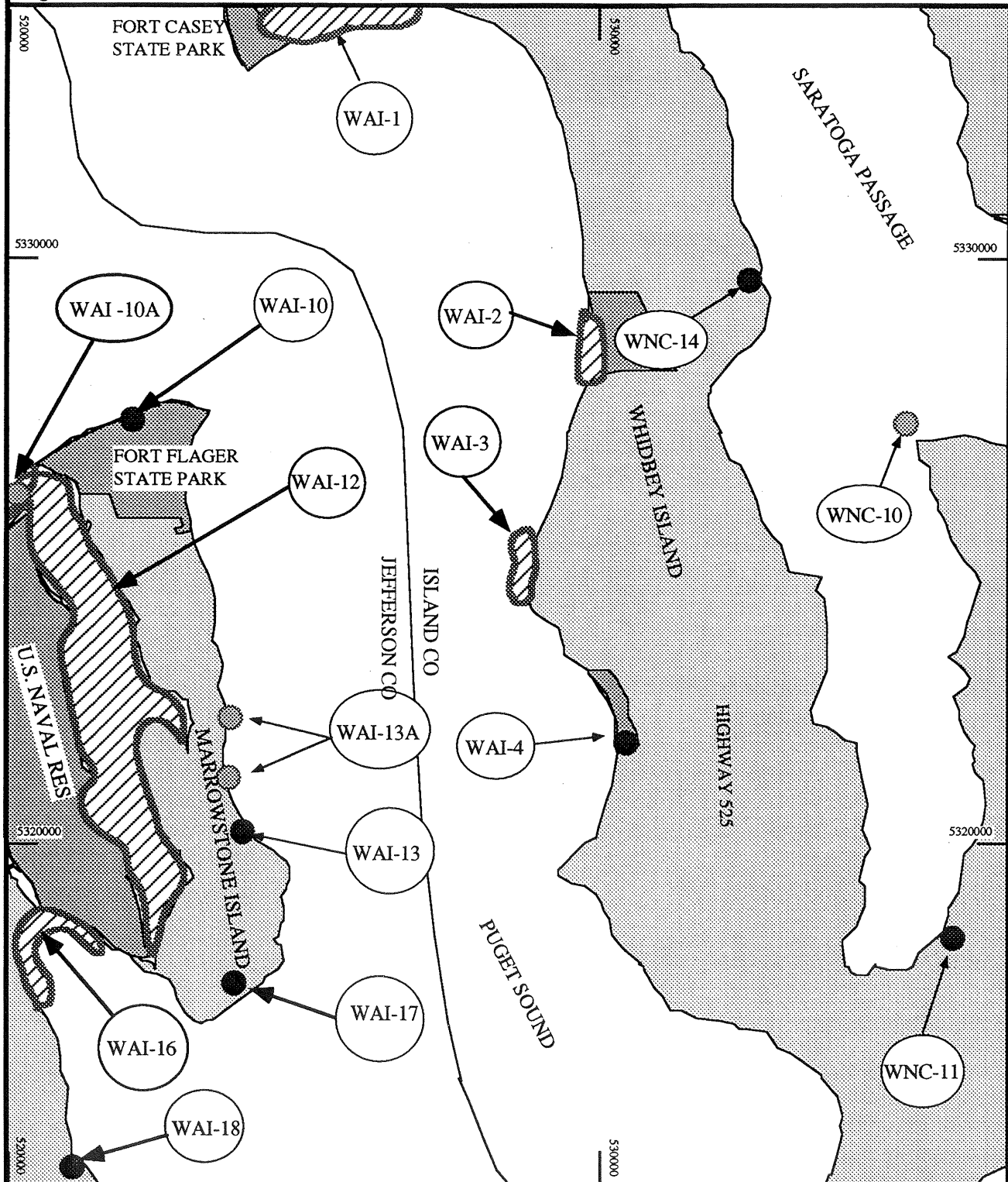
1. Pilots refer to the chapter on Flight Restriction Zones.
2. All ground entry within 100 yards of sensitive nesting species is restricted.
3. All boaters are requested to approach no closer than 100 yards to seal and waterfowl concentrations.



- MARINE MAMMAL HAULOUT
- SENSITIVE SPECIES NESTING
- ⚓ BOAT LAUNCH

- ▨ PARK OR PUBLIC LAND
- ▨ RESERVATION
- ★ TOWN OR CITY

- ▨ BIRD CONCENTRATION AREA



PORT GAMBLE FLIGHT RESTRICTION ZONES / SENSITIVE WILDLIFE

									Flight and Ground Entry Restrictions *											
Map Page 18441									PERIOD OF SENSITIVITY											
Code	Location	Seabird Colony	Seabird Conc	Waterfowl Conc	Marine Mammal Haulout	Sensitive nesting species	Shorebird concentration	Flight Restriction	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WAI-5	Double Bluff					Yes		Yes												
WAI-6	Deer Lagoon			Yes		Yes	Yes	Yes												
WAI-18	Olele Point					Yes		Yes												
WAI-19	Klas Point				Yes			Yes												
WAI-20	Clovos Rocks				Yes			Yes												
WAI-20A	Tala Point				Yes			No												
WAI-21	Mouth of Hood Canal		Yes					No												
WAI-22	Skunk Bay					Yes		Yes												
WAI-23	Point No Point					Yes		Yes												
WAI-23A	Pilot Point					Yes		Yes												
WAI-24	Coon Bay Area					Yes		Yes												
WAI-24A	Coon Bay area			Yes				No												
WAI-25	Point Hannon					Yes		Yes												
WAI-25A	Hood Head					Yes		Yes												
WAI-26	Port Gamble		Yes			Yes		Yes												
WAI-26A	Teekalet Bluff					Yes		Yes												
WAI-26B	Port Gamble					Yes		Yes												
WAI-26C	Port Gamble					Yes		Yes												
WAI-26D	Port Gamble					Yes		Yes												
WAI-26E	Port Gamble				Yes			Yes												
WAI-27	Apple Cove Point					Yes		Yes												

* FLIGHT AND GROUND ENTRY RESTRICTIONS

Flights below 1000 feet require clearance: See appendix on Flight Restriction Zones

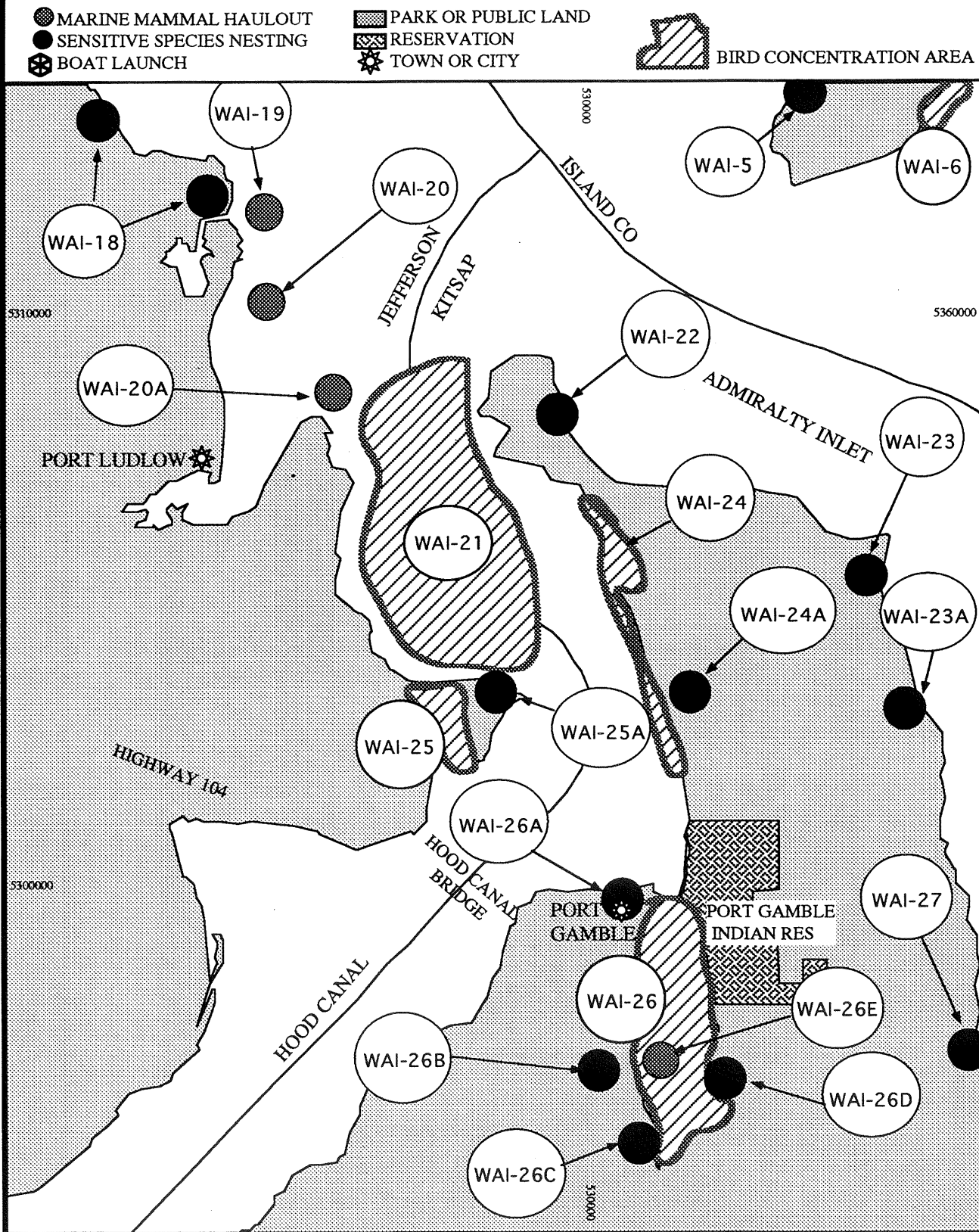
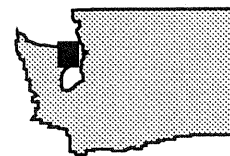
Sensitive season - Minimize overflight disturbance

PORT GAMBLE

HOOD CANAL / ADMIRALTY INLET GRP

FLIGHT RESTRICTION ZONES FOR SENSITIVE WILDLIFE SPECIES

1. Pilots refer to the chapter on Flight Restriction Zones.
2. All ground entry within 100 yards of sensitive nesting species is restricted.
3. All boaters are requested to approach no closer than 100 yards to seal and waterfowl concentrations.



MUKILTEO FLIGHT RESTRICTION ZONES / SENSITIVE WILDLIFE

Flight and Ground Entry Restrictions*
PERIOD OF SENSITIVITY

Map Page 18441		Seabird	Seabird	Waterfowl	Marine Mammal	Sensitive	Shorebird	Flight														
Code	Location	Colony	Conc	Conc	Haulout	nesting species	concentration	Exclusion	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
WAI-6	Deer Lagoon			Yes		Yes	Yes	Yes														
WAI-7	Cultus Lake			Yes		Yes	Yes	Yes														
WAI-8	Possession Point		Yes					No														
WAI-8A	Possession Point					Yes		Yes														
WNC-2	Picnic Point					Yes		Yes														
WNC-3	Possession Point S.					Yes		Yes														
WNC-4	Possession Point N.					Yes		Yes														
WNC-5	Glendale					Yes		Yes														
WNC-34	Mukilteo "Rip"		Yes					No														
WNC-35	Possession Pt. "Rip"		Yes					No														

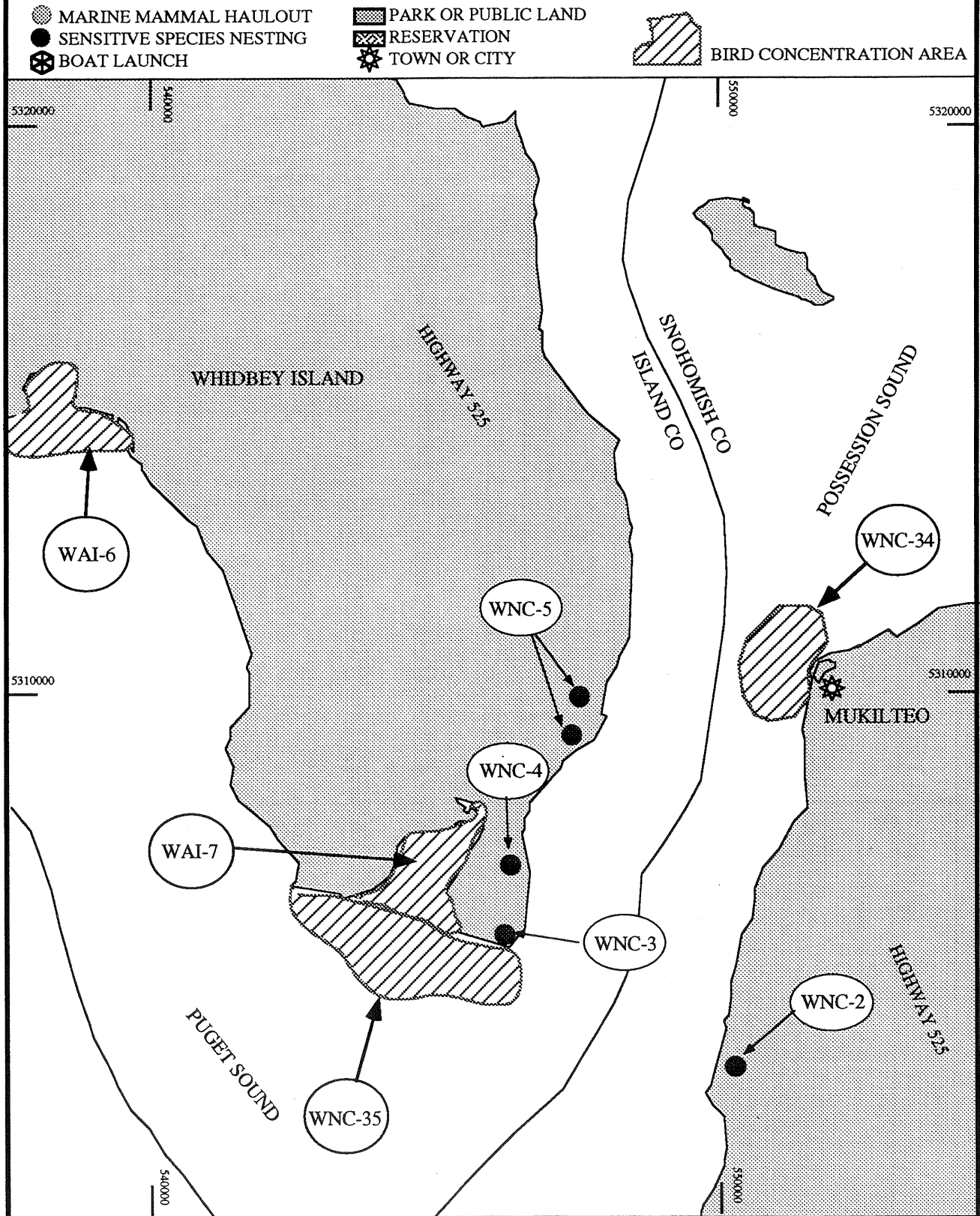
* FLIGHT AND GROUND ENTRY RESTRICTIONS

Flights below 1000 feet require clearance: See appendix on Flight Restriction Zones

Sensitive season - Minimize overflight disturbance

MUKILTEO**FLIGHT RESTRICTION ZONES FOR SENSITIVE WILDLIFE SPECIES**

1. Pilots refer to the chapter on Flight Restriction Zones.
2. All ground entry within 100 yards of sensitive nesting species is restricted.
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QUILCENE FLIGHT RESTRICTION ZONES / SENSITIVE WILDLIFE

									Flight and Ground Entry Restriction *											
Map Page 18441									PERIOD OF SENSITIVITY											
		Seabird	Seabird	Waterfowl	Marine Mammal	Sensitive	Shorebird	Flight	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	Location	Colony	Conc	Conc	Haulout	nesting species	concentration	Restriction												
WHC-1	South Pt.					Yes		Yes												
WHC-2	Thorndyke Bay			Yes		Yes		Yes												
WHC-3	Brown Pt.					Yes		Yes												
WHC-4	Dabob Bay, Long Spit				Yes			No												
WHC-5	Dabob Bay					Yes		Yes												
WHC-6	Dabob Bay					Yes		Yes												
WHC-7	Dabob Bay, Broad Spit				Yes			No												
WHC-8	Dabob Bay, Broad Spit					Yes		Yes												
WHC-9	N. Tabook Pt.					Yes		Yes												
WHC-10	Tabook Pt.					Yes		No												
WHC-11	Quilcene Bay					Yes		Yes												
WHC-12	Quilcene Bay					Yes		Yes												
WHC-13	Quilcene Bay				Yes			Yes												
WHC-14	Quilcene Bay				Yes			Yes												
WHC-15	Quilcene Bay			Yes				Yes												

* FLIGHT AND GROUND ENTRY RESTRICTIONS

Flights below 1000 feet require clearance: See appendix on Flight Restriction Zones

Sensitive season - Minimize overflight disturbance

QUILCENE**FLIGHT RESTRICTION ZONES FOR SENSITIVE WILDLIFE SPECIES**

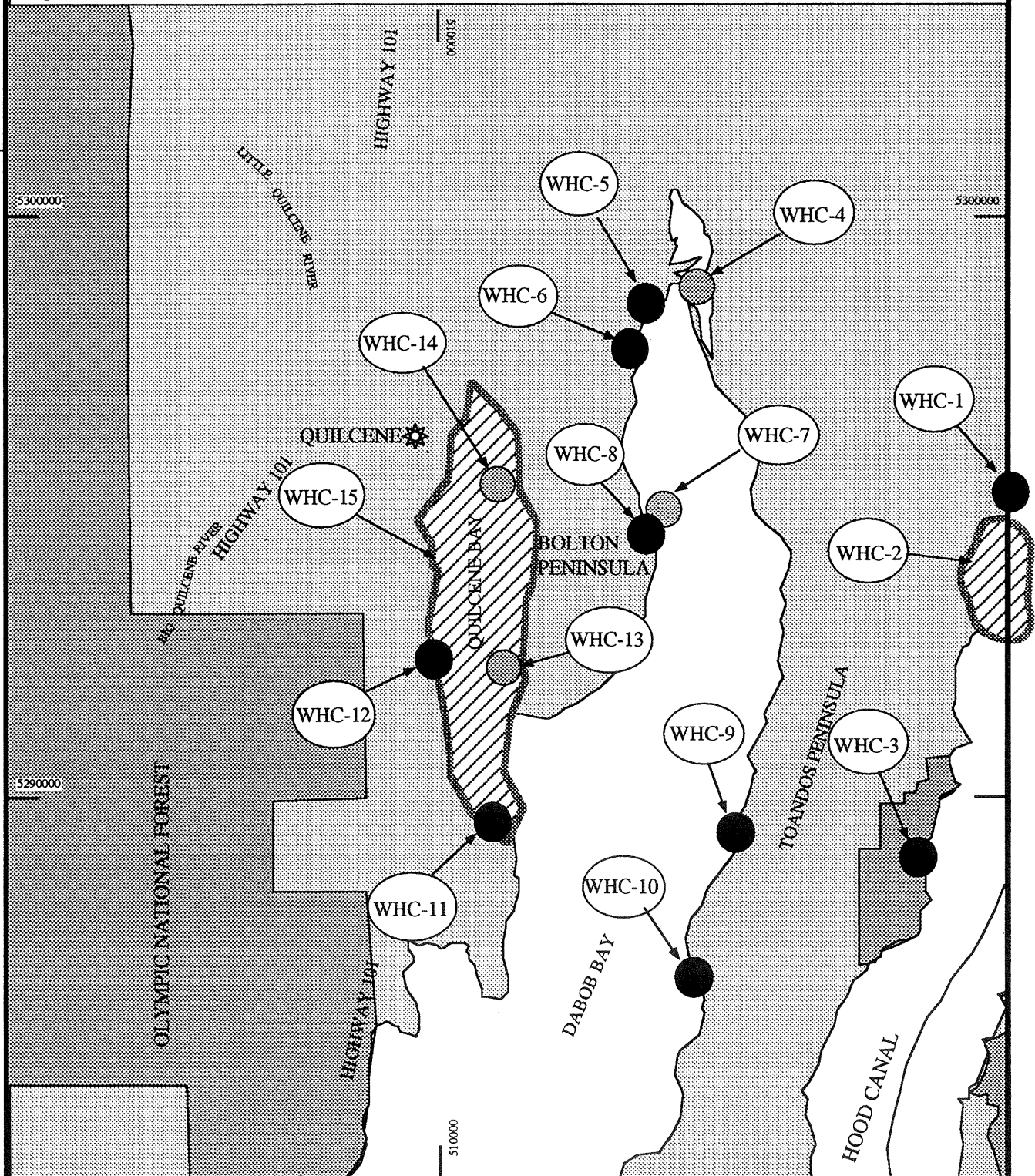
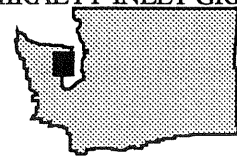
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3. All boaters are requested to approach no closer than 100 yards to seal and waterfowl concentrations.

- MARINE MAMMAL HAULOUT
- SENSITIVE SPECIES NESTING
- ⬢ BOAT LAUNCH

- ▨ PARK OR PUBLIC LAND
- ▨ RESERVATION
- ★ TOWN OR CITY



BIRD CONCENTRATION AREA



BLACK POINT FLIGHT RESTRICTION ZONES / SENSITIVE WILDLIFE

									Flight and Ground Entry Restrictions *											
									PERIOD OF SENSITIVITY											
		Seabird	Seabird	Waterfowl	Marine Mammal	Sensitive	Shorebird	Flight	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	Location	Colony	Conc	Conc	Haulout	nesting species	concentration	Exclusion												
WHC-16	Dosewallips Rvr Delta				Yes			Yes												
WHC-17	Dosewallips Rvr Delta		Yes	Yes		Yes	Yes	Yes												
WHC-18	Duckabush Rvr Delta				Yes			Yes												
WHC-19	Duckabush Rvr Delta			Yes		Yes		Yes												
WHC-20	Big Beef Harbor					Yes		No												
WHC-21	Big Beef Harbor						Yes	No												
WHC-22	Hazel Pt.					Yes		Yes												

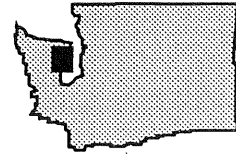
* FLIGHT AND GROUND ENTRY RESTRICTIONS

Flights below 1000 feet require clearance: See appendix on Flight Restriction Zones

Sensitive season - Minimize overflight disturbance

BLACK POINT**FLIGHT RESTRICTION ZONES FOR SENSITIVE WILDLIFE SPECIES**

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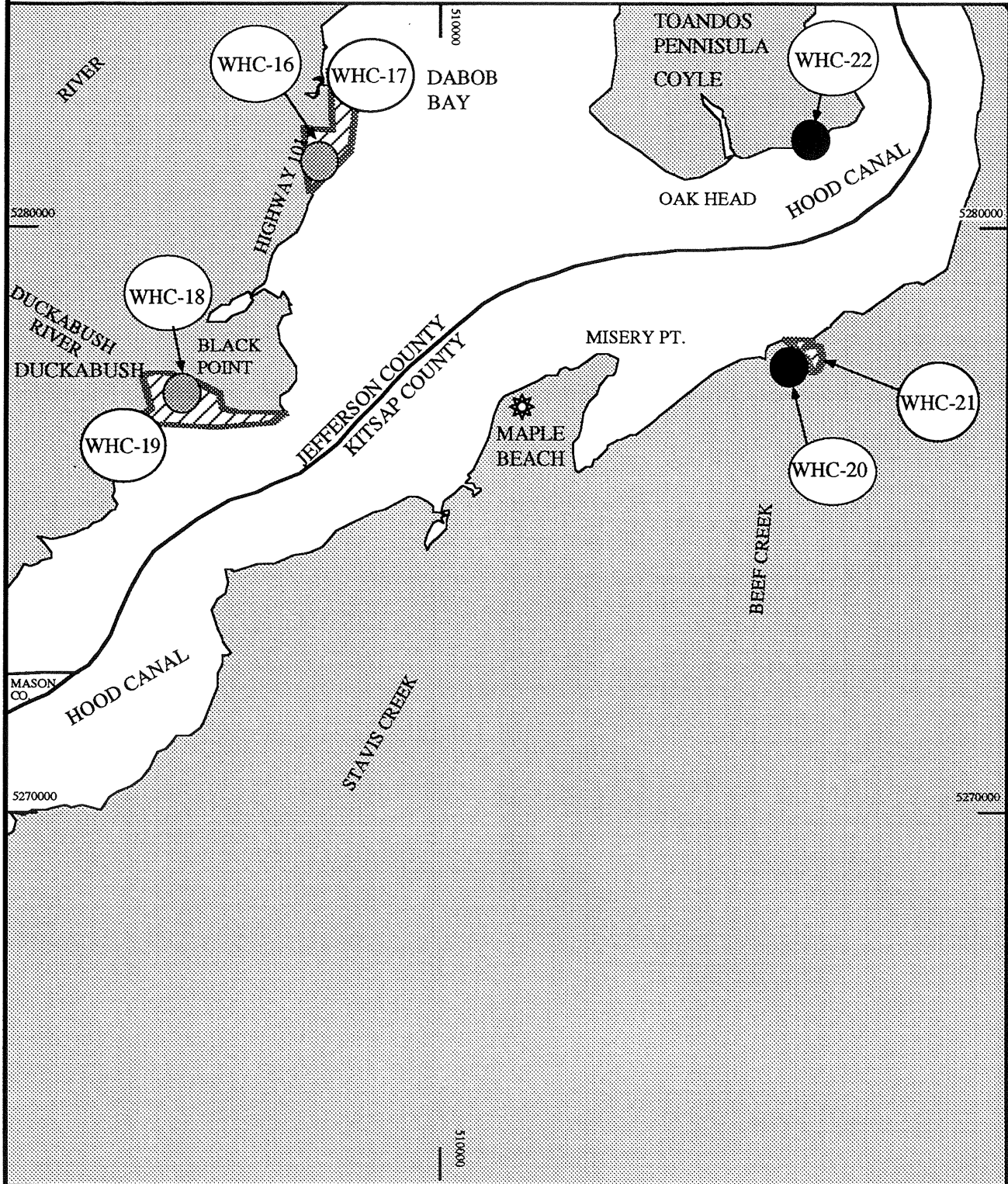


- MARINE MAMMAL HAULOUT
- SENSITIVE SPECIES NESTING
- ⊕ BOAT LAUNCH

- ▨ PARK OR PUBLIC LAND
- ▨ RESERVATION
- ★ TOWN OR CITY



BIRD CONCENTRATION AREA



ELDON FLIGHT RESTRICTION ZONES / SENSITIVE WILDLIFE

									Flight and Ground Entry Restrictions *											
Map Page 18448									PERIOD OF SENSITIVITY											
		Seabird	Seabird	Waterfowl	Marine Mammal	Sensitive	Shorebird	Flight	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	Location	Colony	Conc	Conc	Haulout	nesting species	concentration	Exclusion												
WHC-23	Hamma Hamma River Delta			Yes	Yes	Yes		Yes												
WHC-24	Dewatto Bay					Yes	Yes	Yes												
WHC-25	Lilliwaup Bay			Yes			Yes	No												

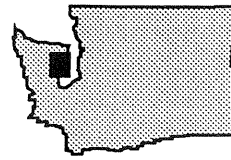
* FLIGHT AND GROUND ENTRY RESTRICTIONS

Flights below 1000 feet require clearance: See appendix on Flight Restriction Zones

Sensitive season - Minimize overflight disturbance

ELDON**FLIGHT RESTRICTION ZONES FOR SENSITIVE WILDLIFE SPECIES**

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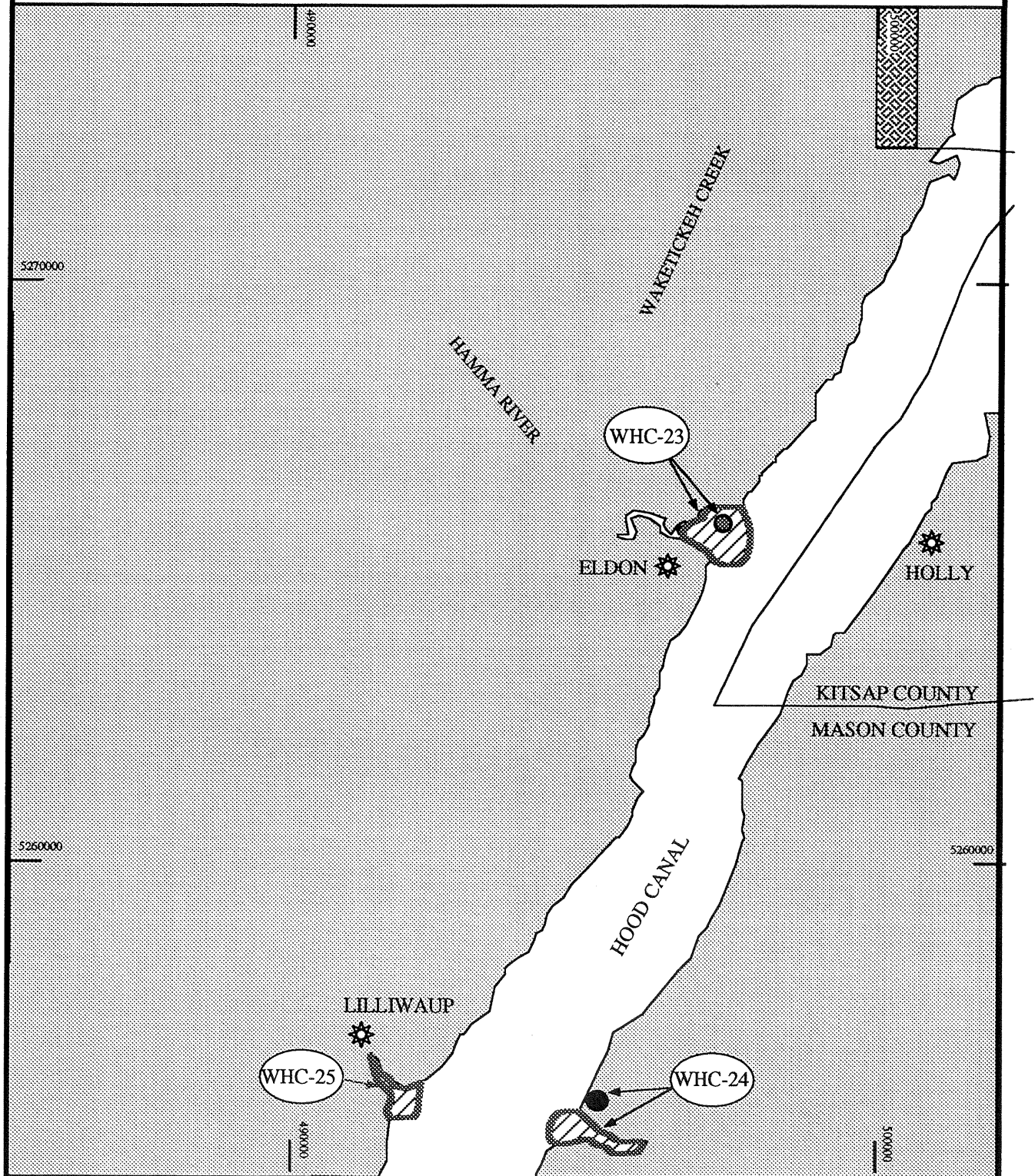


- MARINE MAMMAL HAULOUT
- SENSITIVE SPECIES NESTING
- ⊞ BOAT LAUNCH

- ▨ PARK OR PUBLIC LAND
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BIRD CONCENTRATION AREA



UNION FLIGHT RESTRICTION ZONES / SENSITIVE WILDLIFE

									Flight and Ground Entry Restrictions *											
Map Page 18448									PERIOD OF SENSITIVITY											
		Seabird	Seabird	Waterfowl	Marine Mammal	Sensitive	Shorebird	Flight	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	Location	Colony	Conc	Conc	Haulout	nesting species	concentration	Exclusion												
WHC-26	Skokomish River Delta			Yes	Yes	Yes	Yes	Yes												
WHC-27	Hood Canal - Anna's Bay to Lynch Cove		Yes	Yes			Yes	No												

* FLIGHT AND GROUND ENTRY RESTRICTIONS

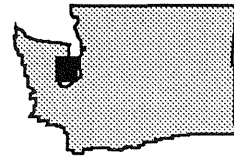
Flights below 1000 feet require clearance: See appendix on Flight Restriction Zones

Sensitive season - Minimize overflight disturbance

UNION

FLIGHT RESTRICTION ZONES FOR SENSITIVE WILDLIFE SPECIES

1. Pilots refer to the chapter on Flight Restriction Zones.
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3. All boaters are requested to approach no closer than 100 yards to seal and waterfowl concentrations.

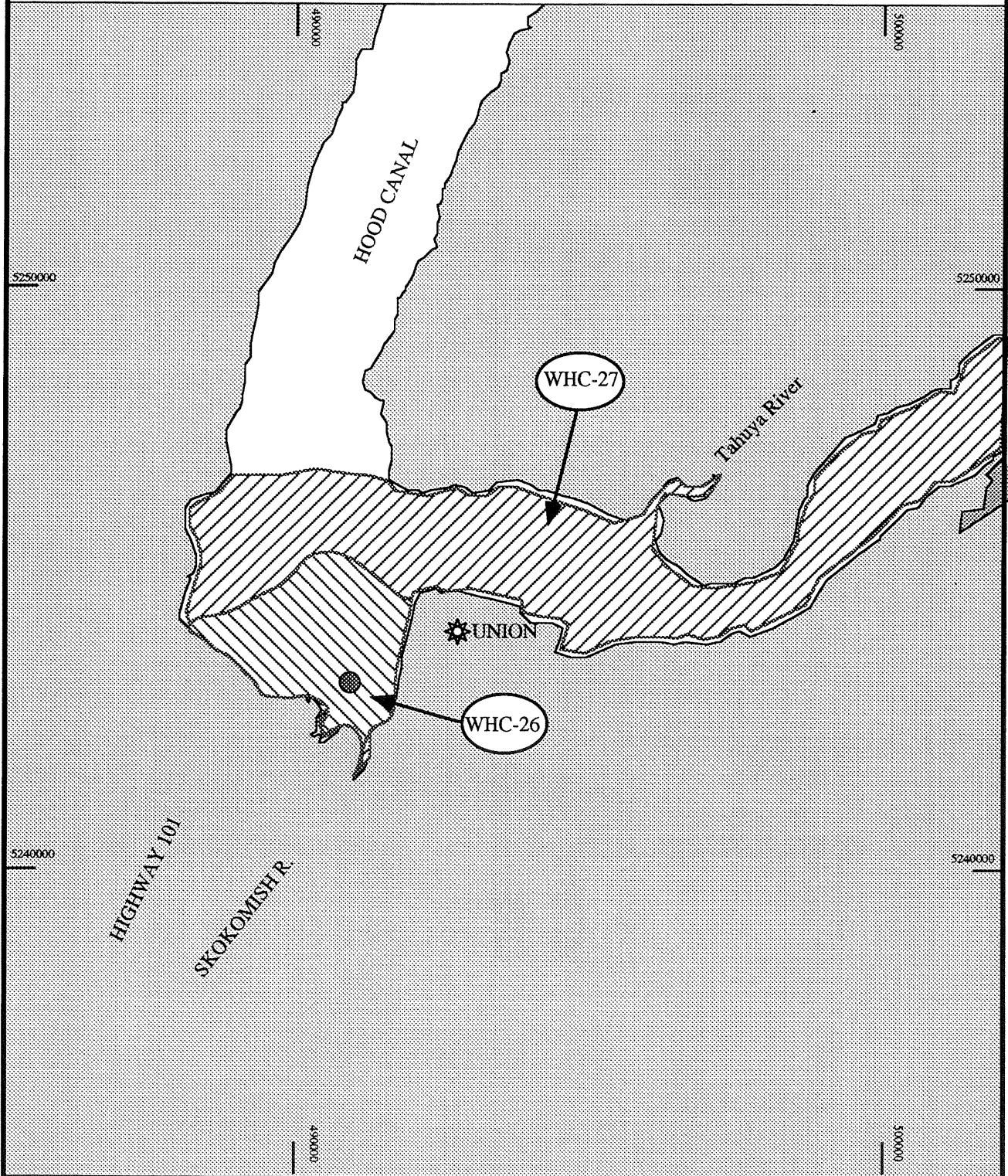


- MARINE MAMMAL HAULOUT
- SENSITIVE SPECIES NESTING
- ⊞ BOAT LAUNCH

- ▨ PARK OR PUBLIC LAND
- ▩ RESERVATION
- ★ TOWN OR CITY



BIRD CONCENTRATION AREA



BELFAIR FLIGHT RESTRICTION ZONES / SENSITIVE WILDLIFE

									Flight and Ground Entry Restrictions *											
									PERIOD OF SENSITIVITY											
Map Page 18448																				
		Seabird	Seabird	Waterfowl	Marine Mammal	Sensitive	Shorebird	Flight	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	Location	Colony	Conc	Conc	Haulout	nesting species	concentration	Exclusion												
WSP-24	Case Inlet		Yes					No												
WHC-27	Hood Canal - Anna's Bay to Lynch Cove		Yes	Yes			Yes	No												
WHC-28	Lynch Cove			Yes		Yes		No												

*** FLIGHT AND GROUND ENTRY RESTRICTIONS**

Flights below 1000 feet require clearance: See appendix on Flight Restriction Zones

Sensitive season - Minimize overflight disturbance

BELFAIR**FLIGHT RESTRICTION ZONES FOR SENSITIVE WILDLIFE SPECIES**

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● MARINE MAMMAL HAULOUT
● SENSITIVE SPECIES NESTING
⊗ BOAT LAUNCH

▨ PARK OR PUBLIC LAND
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★ TOWN OR CITY



BIRD CONCENTRATION AREA

